(19) World Intellectual Property Organization International Bureau





(43) International Publication Date 6 March 2003 (06.03.2003)

PCT

(10) International Publication Number WO 03/018543 A1

- (51) International Patent Classification⁷: C07C 317/20, C07D 213/40, C07C 317/44, C07D 233/56, 211/46, 295/18, 211/60, A61K 31/10, C07D 211/62, A61P 25/28
- (21) International Application Number: PCT/GB02/03806
- (22) International Filing Date: 16 August 2002 (16.08.2002)
- (25) Filing Language:

English

(26) Publication Language:

English

(30) Priority Data:

0120347.0 21 August 2001 (21.08.2001) GE PCT/GB01/03741 21 August 2001 (21.08.2001) GE

- (71) Applicant: MERCK SHARP & DOHME LIMITED [GB/GB]; Hertford Road, Hoddesdon, Hertfordshire EN11 9BU (GB).
- (72) Inventors: CHURCHER, Ian; Terlings Park, Eastwick Road, Harlow, Essex CM20 2QR (GB). DINNELL, Kevin; Terlings Park, Eastwick Road, Harlow, Essex CM20 2QR (GB). HARRISON, Timothy; Terlings Park, Eastwick Road, Harlow, Essex CM20 2QR (GB). KERRAD, Sonia; Terlings Park, Eastwick Road, Harlow, Essex CM20 2QR (GB). NADIN, Alan, John; Terlings Park, Eastwick Road, Harlow, Essex CM20 2QR (GB). OAKLEY, Paul, Joseph; Terlings Park, Eastwick Road, Harlow, Essex CM20 2QR (GB). SHAW, Duncan, Edward; Terlings Park, Eastwick Road, Harlow, Essex CM20 2QR (GB). TEALL, Martin, Richard; Terlings

Park, Eastwick Road, Harlow, Essex CM20 2QR (GB). WILLIAMS, Brian, John; Terlings Park, Eastwick Road, Harlow, Essex CM20 2QR (GB). WILLIAMS, Susannah; Terlings Park, Eastwick Road, Harlow, Essex CM20 2QR (GB).

- (74) Agent: HORGAN, James, Michael, Fred; European Patent Department, Terlings Park, Eastwick Road, Harlow, Essex CM20 2QR (GB).
- (81) Designated States (national): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GII, GM, HR, HU, ID, IL, IN. IS, JP, KE, KG, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, UZ, VC, VN, YU, ZA, ZM, ZW.
- (84) Designated States (regional): ARIPO patent (GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, SK, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Published:

with international search report

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(54) Title: NOVEL CYCLOHEXYL SULPHONES

$$Ar^{1}SO_{2}$$

$$Ar^{2}$$

$$R^{1c}$$

$$R^{1b}$$

$$(I)$$

(57) Abstract: Novel sulphones of formula I are disclosed: The compounds modulate the processing of amyloid precursor protein by gamma-secretase, and hence are useful in the treatment or prevention of Alzheimer's disease.

